



Federal Aviation
Administration

FAA Update

Environmental Regulations for Airports Workshop

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Date: September 23, 2011



What is Airport Sustainability?

Airport Sustainability is not ...



... radical environmentalism, or an unachievable goal.

Defining Airport Sustainability

Airport sustainability planning is a holistic approach to managing an airport to ensure:

- **Economic viability**
- **Operational efficiency**
- **Natural resource conservation**
- **Social responsibility**

Airports Council International
of North America



Benefits of Airport Sustainability Planning

- Economic Viability

- Reduces development and/or operations and maintenance costs
- Results in greater utilization of assets
- Encourages integrated design as a way of doing business
- Incentivizes creation of new technologies



- Operational Efficiency

- Efficient use of existing resources and minimizes waste
 - Limits impacts to existing facilities
 - Multi-purpose use of new facilities
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Benefits of Airport Sustainability Planning

- Natural Resource Conservation
 - Conserves and protects resources
 - Avoids and reduces impacts
 - Facilitates approval/ permitting

- Social Responsibility
 - Improves relationships with community and agencies
 - Enhances quality of life and socioeconomic well being of the local community



What is Driving Airport Sustainability?

- Federal, State and local mandates
- Rising and fluctuating energy costs
- Aging infrastructure
- Growing stewardship philosophy
- Airline industry financial pressures
- Airport image and passenger expectations



Fresno Airport Solar Farm

Source: Fresno Yosemite International Airport

Sustainability Initiatives

- Industry Initiatives:
 - Global Reporting Initiative's Airport Operators Sector Supplement
 - Sustainable Aviation Guidance Alliance (SAGA) Database
 - Airport Initiatives: Sustainable airport manuals, master plans, and projects at multiple airports
 - Airport Cooperative Research Program:
 - ACRP Project #02-28: *Sustainability for Airports: Best Practices, Success Metrics, and Beyond*
 - ACRP Project #02-30: *Enhancing the Airport-Industry Database of Sustainable Practices*
 - ACRP Report 42: *Sustainable Airport Construction Practices*
 - *2012 Projects*
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Integrating Sustainability into Planning

- Sustainable Master Plans
 - Portland Airport Futures; Ithaca Sustainable Master Plan
- Stand Alone Sustainability Plans
 - San Francisco, Philadelphia, Stewart, Manchester,
- Sustainability Management Systems
 - Los Angeles World Airports, Albuquerque Airports
- Facility Design and Construction Guidelines
 - Chicago SDM/SAM, Port Authority, LAWA, Massport
- Capital Improvement Plans



FAA and Sustainability

- FAA Existing and New Programs Noise compatibility (Part 150)
 - Voluntary Airport Low Emissions (VALE)
 - Executive Order 13514 (Federal Leadership in Environmental, Energy, and Economic Performance)
 - Environmental Management Systems
 - Alternative Energy (Geothermal/Solar)
 - Solar Guidance
http://www.faa.gov/airports/environmental/policy_guidance/media/airport_solar_guide_print.pdf
 - Sustainable Master Plan Pilot Program
<http://www.faa.gov/airports/environmental/sustainability>
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FAA Sustainable Plan Pilot Program



- Though we have committed to sustainability plans in the airport setting, many of them have been associated with an environmental impact analysis
- Initiatives like the Sustainable Master Plan Pilot Program are intended to take a more proactive, holistic approach to sustainable planning
- They are also one way to organize sustainability information and evaluate practices

FAA Sustainable Plan Pilot Program

- Initiated in May 2010
 - Goals:
 - ✓ Make sustainability a core airport objective through development of comprehensive plans with measurable goals
 - ✓ Encourage a more holistic approach to sustainability
 - ✓ Help airports achieve the Triple Bottom Line while meeting their operational requirements
 - ✓ Use lessons learned to develop national program guidance
 - Program participants have 2 years from the date of grant issuance to complete their plans
 - 10 airports are participating in the program
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Participating Airports

Sustainable Master Plans:

Nashville International Airport

Newport News/Williamsburg International Airport

Newton City-County Airport

Sustainable Management Plans:

Denver International Airport

Fresno Yosemite International Airport

Hartsfield-Jackson Atlanta International Airport

Newark Liberty International Airport

Outagamie County Regional Airport

Renton Municipal Airport

Teterboro Airport



Sustainable Master Plan/Management Plan Content

- Each master plan/management plan has six required elements:
 1. A sustainability policy or mission statement
 2. Establishment of sustainability categories
 3. A baseline assessment/inventory for each category
 4. Establishment of measurable goals to minimize impacts and resource consumption
 5. Identification of sustainability initiatives to help achieve each goal
 6. Public participation and outreach (to the greatest extent practicable)
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Common Questions

- Common Questions:

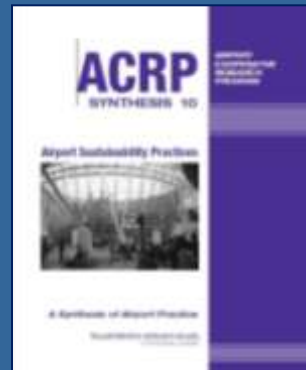
- Funding initiatives that are identified in a sustainable master plan/management plan (including management systems)
 - Level of public, government, and academic involvement
 - How to involve all levels of the airport organization
 - A sustainable master plan/management plan's ability to aid the NEPA process
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Next Steps

- Next Steps:
 - Sustainable Master Plan Pilot Program:
 - We are currently reviewing preliminary plan documentation
 - As the plans are prepared, we will be collecting information and lessons learned
 - FAA will use lessons learned to develop national program guidance on airport sustainability
 - Cooperative Research: ACRP Projects 02-28 and 02-30 will be completed during the next 2 FYs
 - Industry Initiatives:
 - GRI's Airport Supplement **completed June 2012**
 - The SAGA database is a living document that will be further enhanced after completion of ACRP Project 02-30
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Sustainability Resources

- Sustainable Aviation Guidance Alliance/SAGA (www.airportsustainability.org)
- Airport Cooperative Research Program (<http://www.trb.org/ACRP/ACRP.aspx>)
 - Synthesis 10 – Airport sustainability Practices
 - 02-28 – Sustainability Best Practices (in progress)
 - 02-30 – Update of SAGA Database (in progress)
 - 02-22 – Integrating Sustainability into Traditional Airport Projects
 - Guidebook 16 - Improving Environmental Performance at Small Airports
 - Report 42 – Sustainable Airport Construction Practices
- ACI-NA Sustainable Aviation (<http://www.aci-na.org/sustainability>)



2012 ACRP Projects

02-38: Understanding **Green** Energy Technologies & Their Effects on Airports

02-39: Applying Whole Effluent Toxicity Testing to Evaluate Airport **Runoff**

02-40: **Climate Change** Adaption Planning: Risk Assessment for Airports

02-42: Evaluating **Air Quality** Monitoring and Public **Health Studies** for Airports

07-11: Reducing **Energy** Use & Maintenance Cost with On-demand Escalators and Moving Walkways

09-03: Airport Parking Structure **Lighting Alternatives**

09-04: **Recommissioning** and Re-tuning Airport Facilities

09-06: **Sustainable** Practices for Airport Maintenance and Operations

09-07: Airport **Maintenance** Roles in Planning, Design, Construction, Commissioning, and Activation

09-08: Enhancing Compatibility of **Storm Water** and Wildlife Management Plans at Airports

FAA Update

National Initiatives

Next **GEN**



FAA

What is NextGen?

- NextGen represents the transformation of our national airspace system, making it more efficient, safe, flexible and sustainable
 - It is not a single program or procedure but a comprehensive initiative that integrates new and existing technologies, procedures and policies
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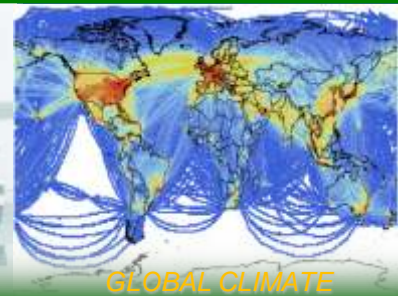
NextGen is...

Sustainability



NextGen Environmental Goals

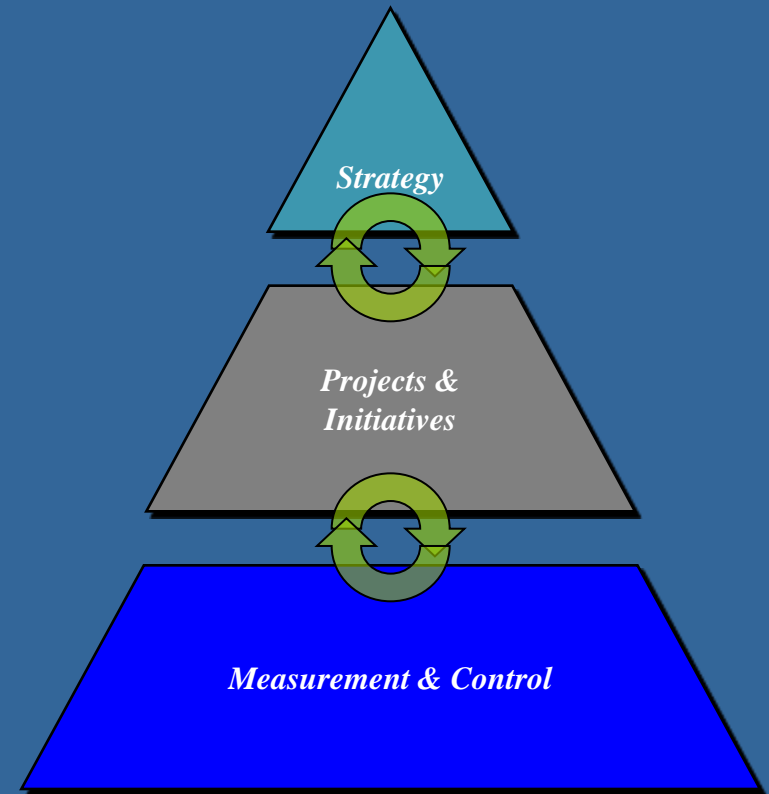
- Absolute reduction in significant aircraft community noise impacts
- Absolute reduction in significant aviation air quality impacts
- Improve NAS-wide energy efficiency and, supply of and access to, alternative fuel sources
- Achieve carbon neutral growth by 2020 (2005 baseline) and net reductions of all aviation emissions by 2050 for climate change
- Reduce significant aviation water quality impacts



NextGen EMS



Sustainable Environmental Management



FY11 Progress to Date

- Completed preliminary analysis of DFW Airport Pilot Study data
- Drafted Collaborative Pilot Study Approach
- Initiated discussions with ATA/CAA
- Continued discussions with Manufacturers
- Began investigating stakeholder roles in NextGen EMS
- Continued stakeholder outreach



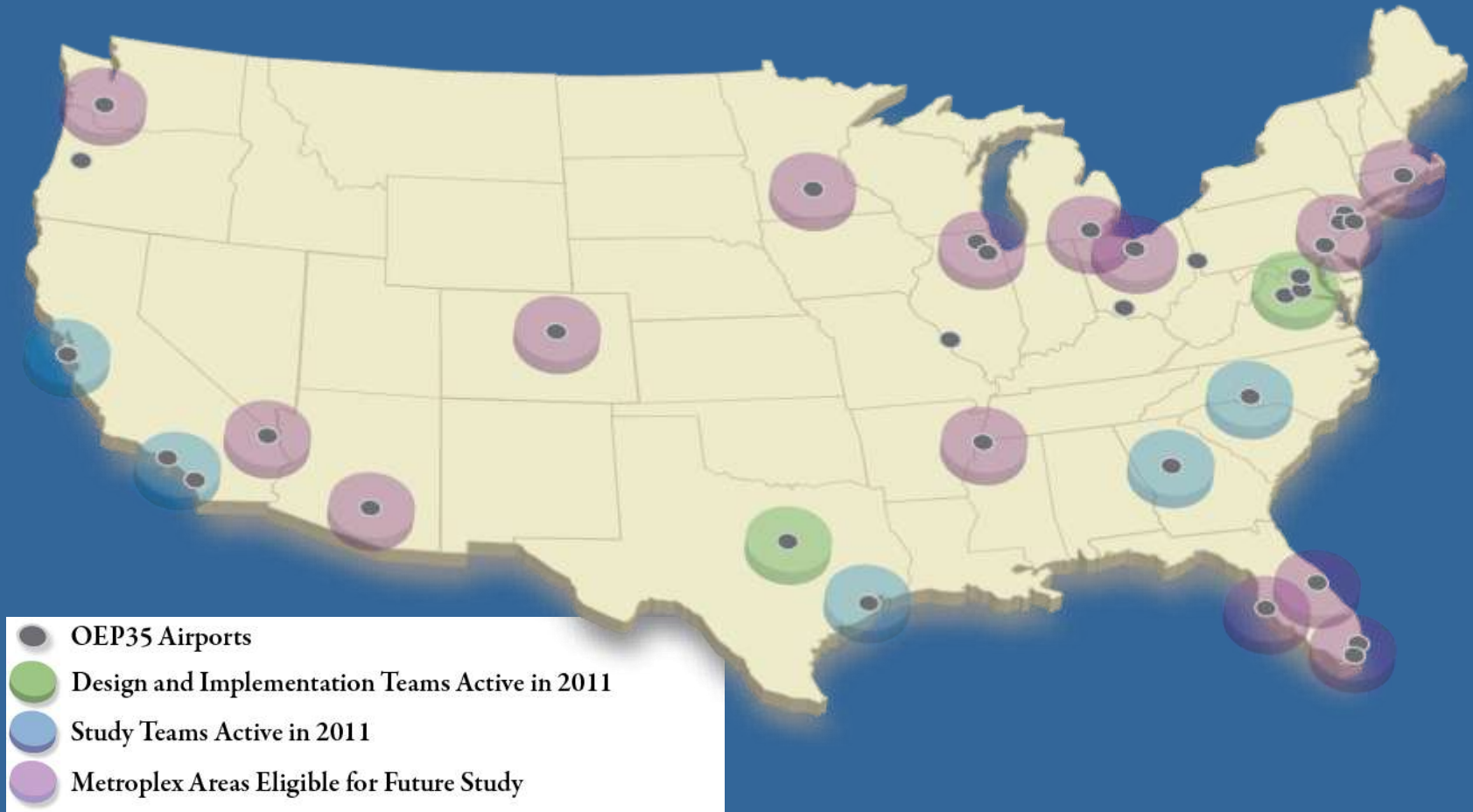
NextGen EMS
Pilot Studies

- Scheduled NextGen EMS Forum (October 20-21 !)
- Initiated draft for NextGen EMS Website
- Investigated NEPA Data Management Opportunities



Outreach and
Communications

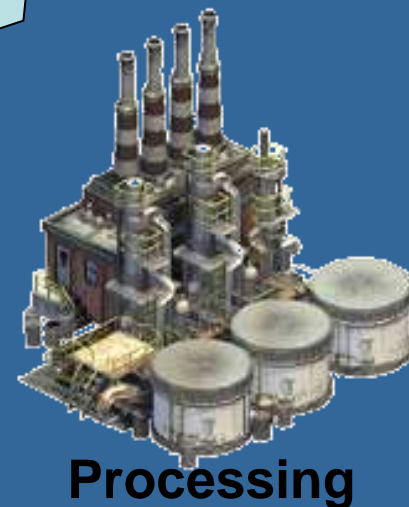
Metroplex



FAA Approach – Alternative Fuels

Advance use of “drop-in” renewable alternative fuels

- No compromise in safety
- Use of public-private partnerships
- Successful demonstration
- Quantification of environmental impacts, costs and benefits



Policy/Guidance Updates

- Program Guidance Letter – noise insulation program
 - AC updates
 - Design
 - Land Use Compatibility
 - Zoning
 - Citizen's Guide
 - Mineral Extraction Guidance
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FAA Update

Regional Initiatives

Sponsor Guide

- Web address for the sponsor guide:

http://www.faa.gov/airports/northwest_mountain/airports_resources/sponsor_guide/

Sponsor Guide

Airports Resources

Airport Compliance

[FAA Airport Compliance Manual](#)

[Residential Through-the-Fence Access Toolkit](#)

[More »](#)

Airport Financial Reporting Program

[AC 150/5100-19C - Guide for Airport Financial Reports Filed by Airport Sponsors](#)

[Airports Financial Reporting Program Brochure \(PDF\)](#)

The following forms should be filed through the [Compliance Activity Tracking System \(CATS\)](#)

[Financial Government Payment Report Form 5100-126](#)

[Operating and Financial Summary Form 5100-127](#)

[More »](#)

Environmental Program

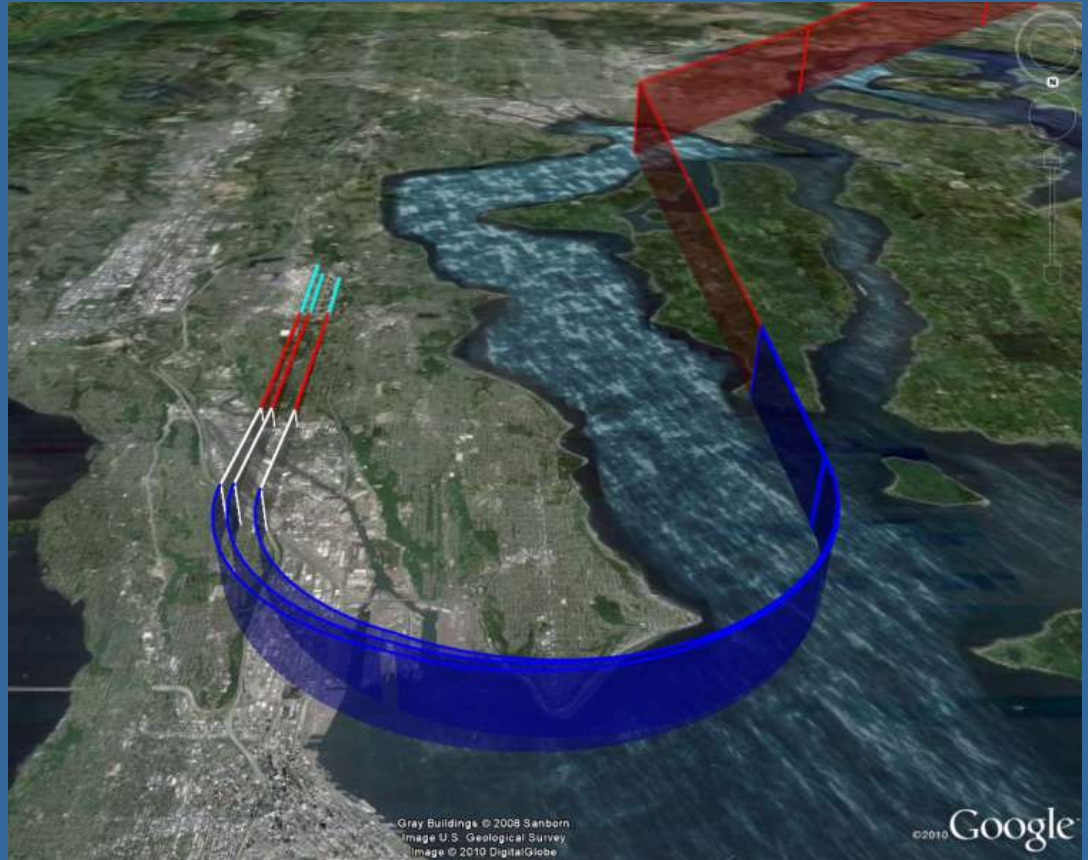
[Categorical Exclusion Form](#) (MS Word)

[Environmental Desk Reference for Airport Actions](#)

[More »](#)

Environmental Side of Greener Skies Over Seattle

- Optimized Profile Descents to all approaches
- RNP/RNAV approaches through Elliot Bay
- Fuel saving routes
- Reduced emissions
- Noise sensitive approaches to all runways



South Flow from OLY VOR

Northwest Mountain Region- Airports Division **Vision**

Prepare Airports for NextGen-Type Technologies and
Enhance Access

NORTHWEST MOUNTAIN REGIONAL AIRPORT PLAN - 2011

http://www.faa.gov/airports/northwest_mountain/planning_capacity/media/rap2011.pdf

ANM Regional Airport Plan Goals and Initiatives

- Capacity and Enhanced Access
 - LPV surveys
 - AGIS/e-ALP
 - Parallel taxiways
 - Runway/taxiway separation
 - Preparing for business jets
 - Support development of NextGen and RNP procedures
 - Inventory airports for infrastructure needs to meet NextGen (*obstructions, runway/taxiway separation, runway length*)
 - Encourage airports to promote community understanding and support for NextGen
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ANM Regional Airport Plan Goals and Initiatives (continued)

- Sustainability

- Promote local efforts toward reduction of global footprint from aviation activities
- Encourage the use of VALE
- Encourage recycling and the use of sustainable construction materials
- Encourage LEED

- Safety and Standards

- Enhance and support safety at airports
- Integrate Safety Management System (SMS) as appropriate

- Pavement Preservation

- Preserve pavement
 - Smart investment decisions
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ANM Region Pilot Project Participation

Airports GIS

- Coeur d'Alene-Pappy Boyington Field, Coeur d'Alene, ID
- Pullman-Moscow Regional Airport, Pullman, WA
- Denver International Airport, Denver, CO

Sustainability

- Renton Municipal Airport, Renton, WA
- Denver International Airport, Denver, CO

What's Next?

- Deicing ELG
- Construction ELG
- ANM Conference (April 16-18, 2012)
- Part 150 process document update

What We Want You To Know!

- The amount of time it takes us to make an environmental determination is directly proportional to the quality of your document!
 - The amount of time it takes us to make an environmental determination is dependent in large part on the experience of the consultant writing the document!
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FAA Points of Contact

ADO

- Hans Anker, Environmental Protection Specialist
- Linda Bruce, Colorado Airport Planner

Region

- Janell Barrilleaux, Environmental Program Manager
- Don Larson, Airport Capacity Program Manager
- Carolyn Read, Planning, Environmental, and Financial Program Manager

HQ

NextGen EMS

- Stacey Zee, FAA Office of Environment and Energy, AEE

NextGen

- Kent Duffy, APP-400

SMS

- Kent Jacobs, APP-400

ARP EMS/Sustainability

- Patrick Magnotta, APP-400 Environmental Protection Specialist
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ASK FAA SESSION

- Kevin Luey, DEN ADO, Environmental and Project Management
 - Linda Bruce, DEN ADO, CO Planner
 - Janell Barrilleaux, ANM Environmental Program Manager
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THANK YOU
